SERVICE MANUAL
WG SERIES GAS GRIDDLES

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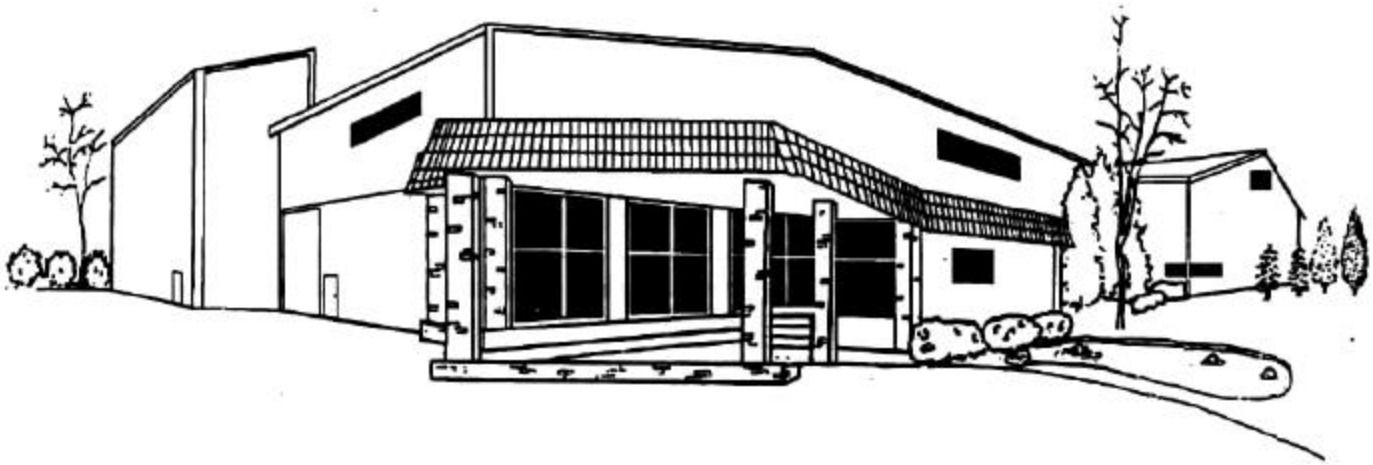

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Data sheets and text of this manual are representative of current production models as of 12/17/91. Specifications, Model Number designations and data are subject to change at any time without notice!

CAUTION: NEVER SUBMERGE ELECTRICAL EQUIPMENT IN WATER. AVOID CONTAMINATING ELECTRICAL COM PONENTS WITH MOISTURE WHEN CLEANING CABINET SURFACES.

When service is required to correct electrical or temperature complaints, always refer service to a Factory Authorized Wells Service Agency or Authorized Sub Servicer. For location of your nearest Servicer, refer to publication 37000 for a complete listing of Factory Authorized Service Agency.

CAUTION:

When servicing or cleaning the equipment in this manual, always remove live power (if used in this appliance) for safety. Use proper cautions when power must be restored while making voltage or current measurements to avoid the possibility of electrical shock!

NOTE: The statement above is a general warning and may not apply to the appliance covered in this manual or gas products that do not have power connected to the appliance.

THIS MANUAL HAS BEEN FORMATED FOR USE BY WELLS FACTORY AUTHORIZED SERVICE AGENCY TECHNICIANS

01/10/92 Rev.__

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INTRODUCTION

Wells Heavy Duty, High Performance WG Series Gas Griddles are designed to cook a full range of food items, from eggs to steaks. Grills effectively at both low and high temperatures for maximum versatility. Fully controllable from 200" F. to 450' F. These Gas Griddles are available in Natural Gas and Propane versions.

Chrome Plated and Grooved surface tops are options. Four basic countertop griddles are available as, WG2424G, a 24" x 25%'* Cooking Surface, 50,000 BTU per hour rated.

WG2436G, a 36" x 25%" Cooking Surface, 75,000 BTU per hour rated. WG3036G. a 36" x 30" Cooking Surface, 75,000 BTU per hour rated. WG3048G. a 48" x 30" Cooking Surface, 100,000 BTU per hour rated.

These new Gas Griddles utilize a snap action control. thermostat. No flame modulation is employed and no bypass flame adjustments are required like former models of Wells Gas Griddles used.

INSTALLATION REQUIREMENTS

WG Series Griddles are design certified for installation only on a non-combustible counter top. Formica or other non-metallic laminate over a combustible material is *not considered non-combustible.*

Caution: Do not operate griddle without legs installed. Four inch high sanitary legs are provided with each Griddle and must be installed prior to operating the appKance.

INSTALLATION CLEARANCES

A minimum of 3" between the rear and side panels of the griddle and non-combustible walls adjacent to the griddle. A minimum of 3 feet of open space in front of the Griddle must be maintained for space to service the Griddle.

The area surrounding the Griddle must be kept free and clear of loose combustible materials. A partial list would include: Rags, Paper items. Mops or electrical cords.

VENTILATING REQUIREMENTS

Venting for the Griddle must comply with the applicable portion of the Standard for the Installation of Equipment for the Removal of Smoke and Grease Laden Vapors from Commercial Cooking Equipment, N.F.P.A. # 96. The venting of the Griddle must not in any way be obstructed or obstruct the flow of combustion air for proper combustion.

GAS PIPING REQUIREMENTS

PRESSURE REGULATOR

Each Griddle is shipped with a pressure regulator matching the fuel type that the griddle and its gas valves, pilots, and burner orifices are designed to operate on.

The Regulator must be installed with the outlet connection connected to the inlet pipe of the Griddle. Failure to install or reversing the connections of the Regulator will void the warranty and may result in a hazardous condition and or damage the gas valves.

GAS PIPING REQUIREMENTS Continued on next page.

GAS PIPING REQUIREMENTS Cont

Supply piping should be a minimum of % inch black iron pipe with a sediment trap (drip leg) consisting of a pipe tee, 4" nipple with cap to prevent dirt from entering the control valves (Consult local codes and ordinances for guidance for this requirement, or in the absence of local codes, use the National Gas Code ANSI Z223.1 and NFPA No. 54).

Pipe thread compounds should be of a type that is resistant to the action of LP (Liquid Petroleum Gases).

Do not use Teflon Tape or Teflon pipe Compound on the inlet connections, use a good quality pipe thread compound. Apply pipe dope sparingly to the male threads only.

Be sure all gas piping is clean and free of obstructions, dirt, and piping compounds. A manual shut-off valve between the % inch feed pipe and the system manifold should be installed for safety when servicing the griddle.

GAS PIPING PRESSURE TESTING

Make sure the supply piping system has been pressure tested before the regulator and griddle is connected. If the system must be re-tested, be sure the regulator is isolated by a manual shut-off valve to prevent damage to the regulator and griddle gas valves.

Always check piping joints for leaks with a soap and water or other approved leak detection solution after any pipe connections are disturbed or changed.

The main system piping must be capable of supplying Griddle with sufficient volume/flow of fuel for maximum input (Operational) requirements.

NOTE:
The maximum inlet pressure from the supply piping should not exceed % P.S.I. (14" W.C.). Pressures above this limit will damage the regulator and gas valves hi the unit.

GAS SUPPLY FLOW/VOLUME REQUIREMENT

When testing for adequate gas pressure, be sure all other gas appliances that utilize the same source piping are in operation with burners "ON" for an accurate operational condition.

If other appliances are not consuming gas when testing for pressure, the test may be inaccurate if flow volume is marginal in the system supply piping.

LEVELING GRIDDLE

Make sure the griddle is level before connecting to the gas supply piping.

Re-check the leveling after piping connections are completed to avoid improper cooking on a slanted surface.

WARRANTY STATUS

WELLS MANUFACTURING COMPANY STANDARD LIMITED WARRANTY APPLIES TO ALL WG SERIES GAS GRIDDLES HAVE COVERAGE FOR PARTS AND LABOR FOR ONE -YEAR FROM THE DATE OF INITIAL INSTALLATION OR FIRST TIME OPERATION OR START-UP. OR, 18 MONTHS FROM THE DATE OF MANUFACTURE.

WARRANTY SERVICE PROVIDED AT THE CUSTOMERS JOB SITE IS LIMITED TO A 60 MILE RADIUS FROM THE CLOSEST WELLS AUTHORIZED SERVICE COMPANY LOCATION AND MUST BE PERFORMED DURING SERVICE WORKING HOURS. ADDITIONAL TRAVEL TIME, MILEAGE, AND LABOR CHARGES ARE THE END USERS RESPONSIBILITY. CALIBRATION 60 DAYS FROM THE DATE OF INSTALLATION. SEE THE WARRANTY STATEMENT PUBLISHED IN ITEM NUMBER 37001 (WARRANTY STATEMENT AND SERVICE AGENCY LISTING) FOR ADDITIONAL INFORMATION ON WARRANTY LIMITATIONS

NOTICE:

Manufacturer's warranty is in effect only when the griddle is installed by qualified personnel and operated in accordance with the instructions in the owners guide and local ordinances or, in the absence of local codes, the National Fuel Gas Code, A.N.S.I. Z223.1-1984 or the latest A.N.S.I. Z223.1 edition. Wells Mfg. Co. is not liable for any damage resulting from failure to comply with this notice.

PURPOSE

Wells WG Series Griddles provide a heavy duty gas fired platen for grilling food products.

Variations in cooking surfaces include grooved segments in multiples of 6 inches to provide a charbroiled appearance to the meat when cooking. A mirror like Chrome Plated surface is also available for a reduced sticking cooking surface.

OPERATION

To set the desired cooking temperatures the front panel covering the control thermostats must be lowered to expose the control knobs.

A pair of magnetic catches and hinges secure the front panel to the body of the griddle: Operations including lighting the pilots, setting temperatures can be accessed though this panel.

CLEANING

Use only PDA approved cleaners and water to remove food particles after scraping away the larger waste from the cooking surface. Never use steel wool to clean the griddle.

Detailed instructions for cleaning the griddle can be found in the owners guide furnished with each griddle. After cleaning the cooking surface the griddle must be re-seasoned.

SEASONING

After each cleaning session, the cooking surface must be seasoned by preheating the surface to 400° F. Spread a light film of unsalted cooking oil or fat over the entire cooking surface. Allow the oil/fat to stand for two (2) minutes and then wipe clean, repeat the process, then thoroughly wipe off the excess oil/fat.

IMPORTANT: Unless the food product contains fat, the griddle surface must be seasoned before each cooking operation.

Clean the surface with a spatula to remove excess fat and food. Wipe all the other surfaces clean with a clean damp cloth and dry.

DAILY MAINTENANCE AND CARE

Scrape crumbs and excess fat into the grease trough and down the grease chute into the grease drawer. Remove Grease Drawer (See Warning at right) by slowly pulling straight out from the griddle front panel.

WARNING: Use caution when removing the grease drawer from the griddle to avoid splashing or spilling hot oil/fat over the sides or end of the drawer assembly.

REFER TO THE CLEANING/MAINTENANCE SECTION OF THE OWNERS GUIDE FOR ADDITIONAL INFORMATION ON MAINTAINING THE GRIDDLE

TESTING GAS PRESSURE

Ports for measuring outlet gas pressure are located on the end of each valve below the red terminal block, a port (# 40 Plug) is also available on the manifold.

To connect a water column gauge, remove the grease drawer to gain access to the left side valve, remove the alien head screw plug sealing the test port, install an adapter fitting in the test port and connect the hose of the gauge.

The regulator Has an adjustment screw under the cap at the raised center of the body of the regulator. Outlet pressure is factory set at the regulator manufacturer for 5 inches (W.C.) for Natural Gas and 10 inches (W.C.) for Propane Gas.

If adjustment is required, remove the cover screw on the regulator, adjust the inner screw counter-clockwise to increase the pressure and clockwise to decrease.

PURGING RAW GAS

Caution must be taken to ensure that no raw gas is present in the surrounding area before attempting to place the griddle into operation.

When using LP. Gas, remember that it is heavier than air. Sniff at floor level for presence of LP. Gas. If present do not attempt to start or light plots.

LIGHTING PILOTS

Each burner assembly has a pilot assembly that must be lighted before the matching main burner can be operated. To light the pilot, (You need a LONG Match) set thermostat control knob(s) to the "OFF" position.

Press in and rotate the plastic control knob on the gas valve to 'PILOT' position, continue to press in on knob, feed a lighted long match through the rectangular viewing cut-out adjacent to the pilot assembly.

After the pilot flame has been established the match can be withdrawn, continue to press in the knob for approximately 30 seconds, slowly release the knob.

The pilot flame should be set to cover a % to Yi inch tall section of the thermopile to ensure that the thermopile will energize the pilot valve and maintain the pilot flame.

If the pilot flame is set too high or low, see the *"pilot flame adjustment"* below.

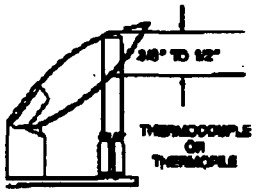
PILOT FLAME ADJUSTMENT

The adjustment screw for setting pilot flame level is located under the slotted metal cap just to the left of the pointer for the control knob on the gas valve.

To increase the flame level, turn the adjustment screw inside the valve counter-clockwise to decrease the flame turn it clockwise.

Replace the cover after the correct pilot flame level has been set.

3/8" to 1/2"
flame is desired



MAIN BURNER AIR/FUEL MIXTURE

Each main burner has an adjustment collar at the inlet end of the burner. This collar is locked from turning by a 5/16" hex head screw that must be loosened to rotate the mixing collar to add or subtract the amount of combustion air mixed with the incoming gas as it enters the main burner to produce a steady blue flame.

SETTING ZONE THERMOSTATS

Each heated zone of the cooking surface has a snap action thermostat to control the gas valve for that section. Access to set each control knob is by lowering the front panel.

Each thermostat is fitted with a control knob dial scaled, "OFF"-200" to 450° F.

Each thermostat mounting bracket has a "V" notch at the top as a pointer index for setting the control dial knob.

After the pilots have been lighted and proven established, turn rotate the knob to the desired (200* to 450° F.) temperature.

After the surface has heated and the thermostats have cycled several times, the surface temperature should be within ± *25*°F. of the dial setting. Variations of less than ± 25° are normal and can be compensated for by simply adjusting the knob to get the desired temperature.

REVIEW OPERATION OF GRIDDLE

After all operational tests have been completed it is advisable to show the end user each control and their functions in operation of the griddle.

A review of the operating instructions with the end user will reduce unnecessary calls for assistance at a later date.

CONTROL CALIBRATION REQUIREMENT WG-2424G to WG-3048G SERIES GRIDDLES

Calibration should not be attempted if the dial can be adjusted to compensate for the temperature variation, or, if the actual griddle surface temperature varies from the dial setting by more than 125° F.

Variations of less than ± 25° F. should be compensated for by adjusting the control dial up or down to the desired surface temperature.

IMPORTANT CALIBRATION CAUTION

WARNING: CALIBRATION HAS A UNITED RANGE, PERMANENT DAMAGE MAY OCCUR IF THE SCREW IS ROTATED MORE THAN ONE FULL TURN.

A TURN OF 1/8 OF REVOLUTION ON THE SCREW WILL CAUSE A 10 - 15' F. OF CHANGE.

THERMOSTAT CALIBRATION TOOL

Calibration of the control thermostat may be accomplished by adjusting the small screw in center of the metal control shaft.

The small flat blade screwdriver required to fit the screw must be a maximum of no more than 3/32 of an inch wide.

PLACEMENT OF TEST PYROMETER OR THERMOMETER

Place the sensor probe of a (known accurate) pyrometer in the area directly above the sensing bulb of the thermostat to be calibrated.

This will place the probe on the cooking surface and centered front to back and side to side in the heated zone of the thermostat being calibrated.

INITIAL HEATING CYCLE

Be sure to allow several on/off cycles before adjusting to avoid overshoot on the initial heating cycle.

Failure to observe this precaution will result in an inaccurate adjustment while calibrating the thermostat.

CALIBRATION

To increase the temperature, turn the adjusting screw counter clockwise, to decrease the temperature, turn the screw clockwise. Apply a small amount of sealant (build a bridge of sealant) to the head of the calibration screw and inside of the control shaft after completing calibration.

Failure to lock the adjusting screw from changing with sealant can result in a drifting problem wit the thermostat.

A NOTE HERE; if more than 1 full turn is required, replace the thermostat Use only genuine O.E.M. parts.

REPLACEMENT PARTS CAUTIONS

When replacing the control thermostats, thermopiles, pilots, and control valves, be sum them is no possibility of hot electrical terminals touching the capillary tubes, case, or other conductive parts.

Be sum to dean and re-dope all pipe thread connections. Apply dope only to the mate threads when assembling pipe fittings. Always do a thorough teak check after working on threaded fittings.

CONTROL THERMOSTATS

Changing thermostats can be accomplished through the front by dropping the control panel (# 54), remove the knob (# 20) by pulling straight off the shaft. remove the wiring from the control thermostat (# 18), remove the 2 screws that mount the (# 19) bracket to the main lower frame member. Remove both mounting screws of the thermostat from the bracket, re-mount bracket (# 19) to the new thermostat.

Remove the front heat deflector shield (# 15) to give clear access to the capillary tubes. Remove the 4 large slotted truss head (# 13) screws at each upper corner of the griddle that fasten the top (# 2) to the main frame assembly (# 1). Raise and block the top assembly with wood blocks to give access to the 7/16" hex nuts and flat washers (# 9 & 10) at the front end of the sensing bulb holders (# 6 & 7) and insulation, remove the front hex nuts and flat washer to relieve the clamping action on the sensing bulb, slide the bulb out of the holder.

When replacing thermostats and other components always use O.E.M. Parts to ensure integrity of the unit.

Early production units have 1/4 push-on terminals on the thermostat connections, late production and service parts thermostats have screw type terminations. When replacing early style thermostats the mounting bracket and wires are furnished as an installation kit to replace the push-on terminal wiring.

Be sure to position the sensing bulb to the proper location at the full depth of the sensor guide tubes.

Do not crush, kink or nick the capillary tube, route smooth bends in the tubes when assembling the component parts of the griddle. Long nose pliers may be used with caution to push the capillary/sensor bulbs into the metal holders and insulation. Be sure to replace the flat washer and hex nut at the front of the holder to clamp the sensor to the bottom of the platen.

CAUTION: Keep the capillary tube and sensing bulb away from direct flame contact. Any excess heating of the capillary tube win damage the thermostat in a short time.

REPLACING GAS VALVES

Always replace defective valves, do not attempt to repair them. Gas valves (# 25) can be replaced by lowering the front panel (# 54), remove push-on terminals on thermostat, remove the 2 screws holding the thermostat bracket to the main frame and moving it just enough to allow access to the gas line fittings on the valve.

Remove the wiring connections from the terminal block, remove the pilot gas line fitting, the inlet and burner line fittings.

Exchange the fittings between the old and new valves using pipe dope sparingly on the male threads only (On LPG units use only an approved for LPG service dope). Re-assemble in the reverse order.

REPLACING PILOTS AND THERMOPILES

Access to pilots and or thermopiles is from below the griddle. The pilots (#42) are mounted from below to the main frame assembly by 2 phillips truss head screws.

The thermopiles are screwed into the bottom of the pilot bracket by a 7/16" hex bushing. The thermopile may be removed with the pilot mounted to the frame.

REPLACING PILOT ORIFICES

When cleaning or replacing pilot burner (#42) orifices, the orifice is held in place between the pilot tube *(*# 21, 22. or 23) and flame deflector tube by a hex nut from below the mounting bracket.

Access to the pilot orifice mounting nut is from the bottom of the griddle. In some cases the pilot tube mounting nut on the gas valve may require loosening to get the tube out of the pilot assembly.

REPLACING BURNER ORIFICES

To clean or replace the main burner orifices, the following instructions will gain access to the orifices.

Each main burner orifice (# 28) is mounted to a bracket (# 16) by a brass fitting *(*# 27) at the end of the burner feed tubing (#31, 32, or 33). Loosen the fitting (# 27) from feed tube, remove the hex nut (# 17) that mounts bracket (# 16) to the main frame (# 1), remove the bracket/fitting and orifice from the throat of the burner assembly.

Support the brass flange elbow fitting (# 27) and remove the burner orifice (# 28) by un-screwing it counter-clockwise from the elbow fitting.

When re-assembling, sparingly apply a pipe dope coating to the male threads of the elbow (On LPG units use only a dope that is approved for use with LPG fuel).

When placing the assembly back on the main frame, be sure the orifice/bracket and burner throat alignment is straight down the center of the burner and that the burner is still in place with its guide pins at the rear and end properly located to align the burner correctly.

Be sure to leak check all gas line fittings with a soap and water or other approved solution after working on the gas lines.

REPLACING REGULATOR ASSEMBLY

Always support the manifold assembly *(*# 34) to avoid damage to the manifold or fittings and lines attached to it when removing or replacing the regulator (# 38) assembly. Always clean off old pipe dope and sparingly re-coat male threads only with an approved pipe dope for the type of fuel used. The regulator body should be mounted so that the vent is pointing down so as to limit the possibility of being contaminated with air born grease.

Support the manifold with a pipe wrench and use tight fitting adjustable or open end wrench on the hex of the regulator (Always place the wrench at the end that is being removed/installed to the piping) where it connects to the manifold. Be sure the pipe and regulator are free of dirt and other contamination.

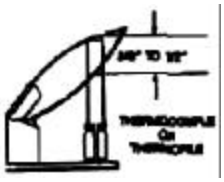
MAIN BURNER SERVICE

Removing/replacing U shaped (# 5) main burners require removing the rear flue assemble *(*# 3) from the main frame assembly. Main burners are held in place by a threaded pin at the lower side in the center of the U bend of the burner set in a hole in the rear of the main frame and by the shutter collar slipped over the orifice at the front and are leveled by a pin on the frame at the end of the burner.

PILOT FLAME AND MAIN BURNER ADJUSTMENTS

The pilot flame is adjusted by a screw under a cover screw on the gas valve (# 25) above and to the left of the pointer for the plastic knob on the valve. Adjust the flame level so that it covers 3/8" to 1/2" of the top of the thermopile (See the drawing below). Replace cover screw after the adjustment is complete.

Adjusting the main burner air/fuel mixture for a steady blue flame requires loosening the 5/16" (A small 5/16" box wrench is required) hex head screw on the shutter collar at the throat of the burner, rotate the shutter to adjust, re-tighten the set screw after adjustment is completed.

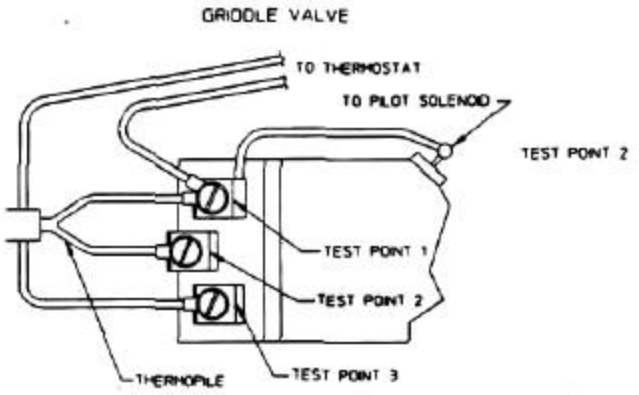


CORRECT FLAME LEVEL THERMOPILE

OUTPUT VOLTAGE

When measuring the open circuit output millivolts of the thermopile, set the valve control knob to pilot, connect the test (Milli)-Voltmeter leads to the gas valve terminals "1 & 2", with the pilot flame heating the thermopile, an output of 500 - 600 millivolts is normal with no load other than the test meter. (See the drawing below).

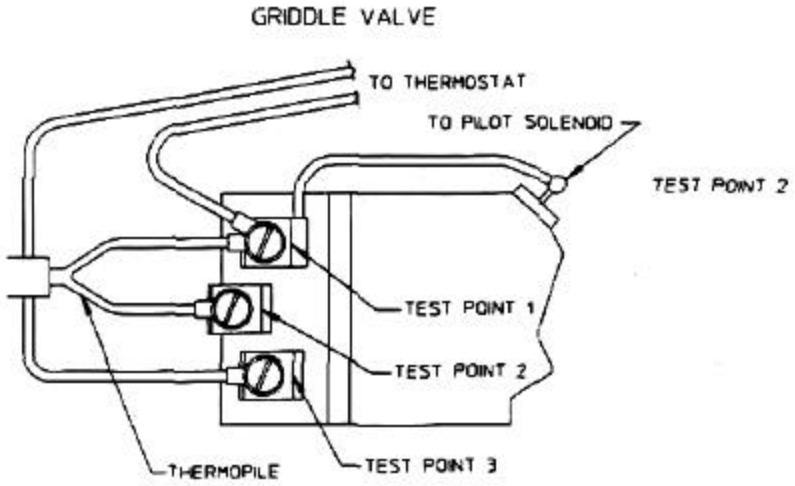
When measuring the output voltage with the control valve set to "ON" and the main burner on, a reading of about 325 millivolts is a normal reading. An occasional drop-out of the gas flow from the gas valve may be caused by a marginal output voltage (200 mV or less) of the thermopile that causes the gas valve to cut off all gas to the pilot and burner.



THERMOSTAT CONTACT TESTING

Testing the thermostat for open contacts can be accomplished by simply placing a jumper wire between test point 1 and 3 on the gas valve terminal block. When these two points are connected, the gas valve should open and the main burner should light provided the pilot flame has been established prior to placing the jumper on the test points. (See the drawing below).

One note on possible problems that may be encountered: Grease contamination build-up on the terminal block, a short circuit between any wire (Thermostat or Thermopile) connected to the gas valve to the case ground/frame of the griddle will cause the gas valve to shut down and cut off the gas flow on the valve connected to the thermostat or thermopile related to that gas valve.



THERMOSTAT REPLACEMENT

Two similar types of thermostats have been used in this series of gas griddles.

Early production units used *V*' push-on terminal lugs, all current production units now use a ring terminal lug, a new screw type terminal and **white ceramic housing** containing a reed switch is now used in the thermostat for a more reliable control of the mV. signals from the Thermopile to the gas valve.

When servicing units with the push-on terminals, converting to the new style screw on terminals will ensure maximum reliability.

When replacing the thermostat use only a genuine O.E.M. Part! For safety, proper operation, efficiency, and preserving the factory Warranty, only O.E.M. Parts should be used when servicing the griddle.

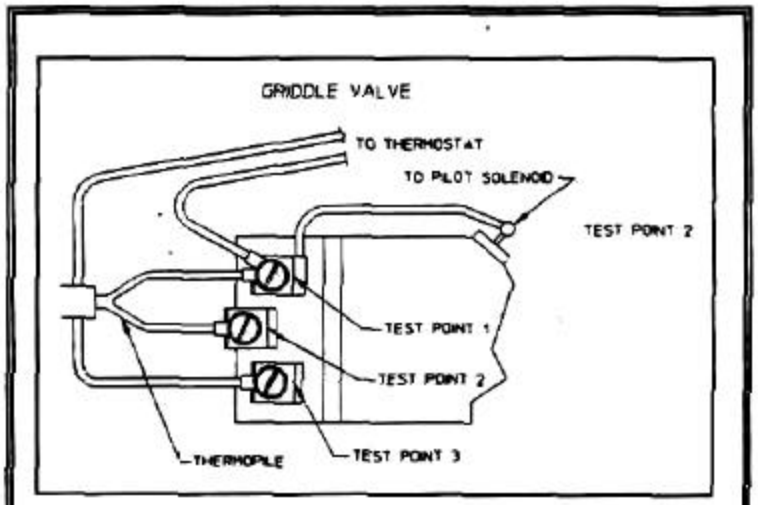
TROUBLE SYMPTOM CHART

TROUBLE SYMPTOM CHART

PROBLEM	PROBABLE CAUSE	CORRECTIVE ACTION
ALL PILOTS WILL NOT LIGHT	GAS SUPPLY TURNED OFF	TURN ON GAS TO GRIDDLE.
ONE PILOT WILL NOT LIGHT	CLOGGED PILOT GAS LINE OR ORIFICE, GAS VALVE FOR THAT PILOT DEFECTIVE	CLEAN PILOT GAS LINE/ORIFICE, REPLACE DEFECTIVE VALVE.
PILOT WILL NOT STAY ON	TOO MUCH DRAFT, LOW PILOT FLAME, BAD THERMOPILE, DEFECTIVE GAS VALVE, PILOT LINE CLOGGED, PILOT ORIFICE CLOGGED, IMPROPER GAS PRESSURE, NO GAS, PILOT LINE NOT PURGED OF AIR, CONDENSATION	SHIELD OR CHANGE AIR SUPPLY, CHECK PILOT FLAME LEVEL, CHECK THERMOPILE OUTPUT, IF 325 MILLIVOLTS OR MORE, REPLACE GAS VALVE, CLEAN ORIFICE, ADJUST REGULATOR PRESSURE, TURN ON GAS, PURGE PILOT LINE OF AIR, RE-LIGHT PILOT.
PILOT AND/OR BURNER FLAME LAZY OR YELLOW	NOT ENOUGH PRIMARY OR SECONDARY AIR, DIRT IN ORIFICE, BURNER VENTURI CLOGGED, IMPROPER SIZE ORIFICE, CLOGGED FLUE, IMPROPER GAS PRESSURE	ADJUST AIR SUPPLY, REMOVE AND CLEAN ORIFICE, CLEAN VENTURI, INSTALL CORRECT ORIFICE, CLEAN RESTRICTED FLUE, ADJUST REGULATOR PRESSURE.
BURNER FLAME NOISY	TOO MUCH PRIMARY AIR, IMPROPER GAS PRESSURE	ADJUST BURNER AIR SHUTTER, ADJUST REGULATOR PRESSURE.
BURNER FLAME TOO HIGH	WRONG SIZE ORIFICE, IMPROPER GAS PRESSURE	INSTALL CORRECT ORIFICE, ADJUST REGULATOR PRESSURE
BURNER POPS	TOO MUCH PRIMARY AIR, DIRT IN BURNER ORIFICE, IMPROPER GAS PRESSURE	ADJUST AIR SHUTTER, CLEAN BURNER ORIFICE, ADJUST REGULATOR PRESSURE.
FLAME IN MIXING TUBE	DIRT IN BURNER ORIFICE, BURNER VENTURI CLOGGED IMPROPER GAS PRESSURE, ORIFICE NOT AIMED IN CENTER OF VENTURI	REMOVE AND CLEAN ORIFICE, CLEAN VENTURI, ADJUST REGULATOR PRESSURE, RE-AIM ORIFICE.
NOT ENOUGH HEAT, OR HEATS TOO SLOWLY	DIRT IN BURNER ORIFICE, WRONG ORIFICE, IMPROPER GAS PRESSURE, VENTURI CLOGGED, CLOGGED FLUE, DEFECTIVE GAS VALVE	REMOVE & CLEAN ORIFICE, INSTALL CORRECT SIZE ORIFICE, ADJUST REGULATOR PRESSURE, CLEAN CLOGGED VENTURI, CLEAN CLOGGED FLUE, REPLACE GAS VALVE.
BURNER WILL NOT COME ON	THERMOSTAT WIRE(s) GROUNDED, POOR CONNECTIONS ON TERMINAL BLOCK OR THERMOSTAT. LOW THERMOPILE OUTPUT. CONTAMINANT(GREASE) ON VALVE TERMINAL BLOCK DEFECTIVE THERMOSTAT, DEFECTIVE GAS VALVE -	CORRECT GROUNDED THERMOSTAT WIRING, CLEAN TERMINAL BLOCK WITH ELECTRIC TERMINAL CLEANER. CHECK PILOT LEVEL AND OR THERMOPILE OUTPUT VOLTAGE, JUMPER THERMOSTAT TERMINALS; IF BURNER TURNS ON: REPLACE THERMOSTAT, IF NOT: REPLACE GAS VALVE.

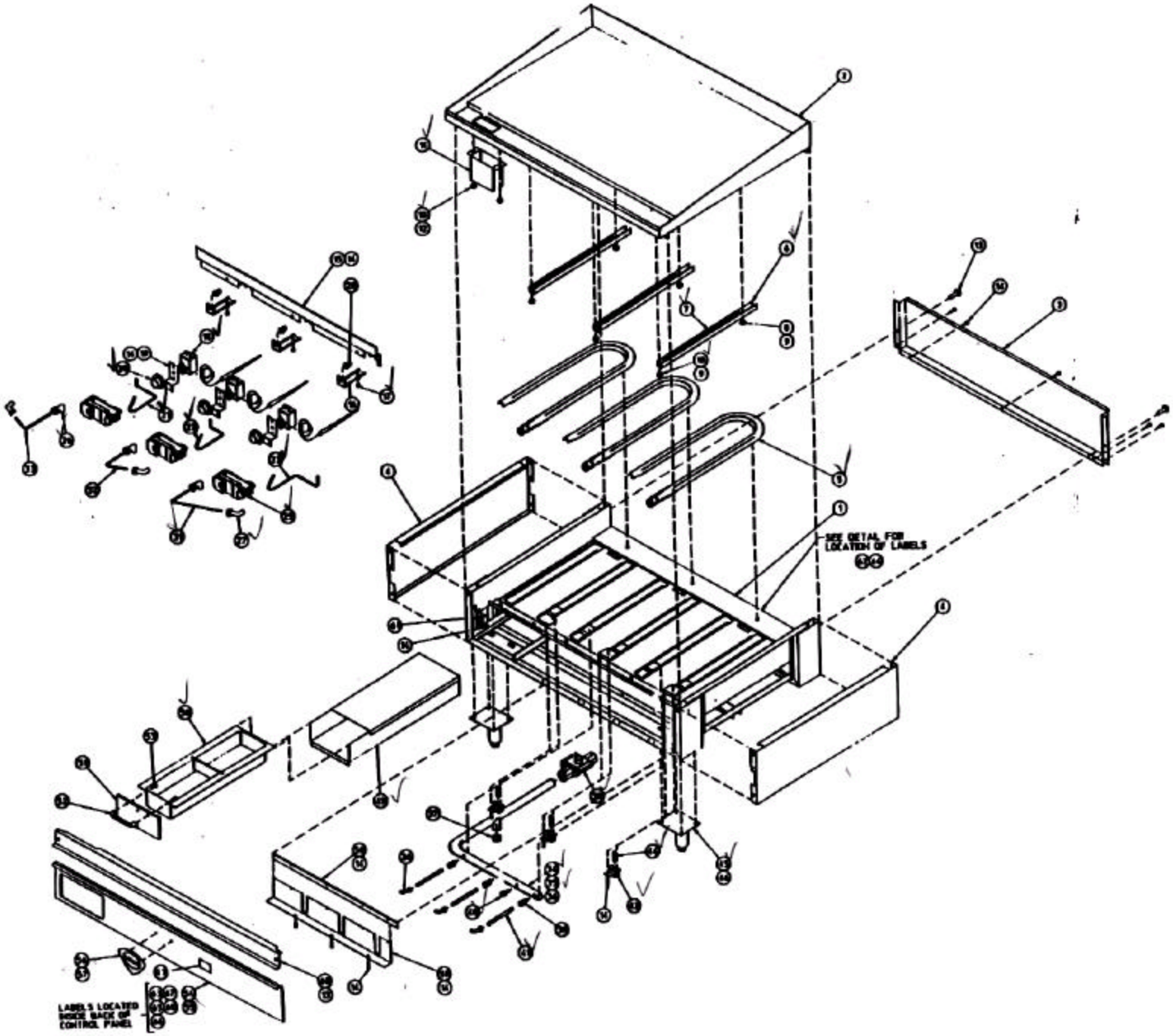
TROUBLE SYMPTOM CHART

PROBLEM	PROBABLE CAUSE	CORRECTIVE ACTION
BURNER WILL NOT SHUT OFF	DEFECTIVE THERMOSTAT, DEFECTIVE GAS VALVE	DISCONNECT WIRE BETWEEN THERMOSTAT AND LOWER TERMINAL "# 3" ON GAS VALVE; IF BURNER STOPS, REPLACE THERMOSTAT; IF NOT REPLACE GAS VALVE.
BURNER FLAME FLOATS	NOT ENOUGH PRIMARY OR SECONDARY AIR, BURNER VENTURI CLOGGED, WRONG ORIFICE, CLOGGED FLUE, IMPROPER GAS PRESSURE	ADJUST AIR INTAKE AND SUPPLY. CLEAN VENTURI, INSTALL CORRECT SIZE ORIFICE, CLEAN CLOGGED FLUE, ADJUST REGULATOR PRESSURE.
COMBUSTION ODORS	TOO MUCH PRIMARY AIR, NOT ENOUGH PRIMARY OR SECONDARY AIR, DIRT IN BURNER ORIFICE, BURNER VENTURI CLOGGED, WRONG ORIFICE, CLOGGED FLUE, IMPROPER GAS PRESSURE	ADJUST AIR SHUTTER, ADJUST AIR INTAKE AND SUPPLY, REMOVE AND CLEAN ORIFICE, CLEAN VENTURI, INSTALL CORRECT SIZE ORIFICE, CLEAN CLOGGED FLUE, ADJUST REGULATOR PRESSURE.
OVERHEATS	DEFECTIVE THERMOSTAT, DEFECTIVE GAS VALVE	DISCONNECT WIRE ON LOWER TERMINAL "# 3" ON GAS VALVE; IF BURNER STOPS, REPLACE THERMOSTAT; IF NOT; REPLACE GAS VALVE.



GAS VALVE TERMINAL BLOCK TEST POINTS

Component Pictorial

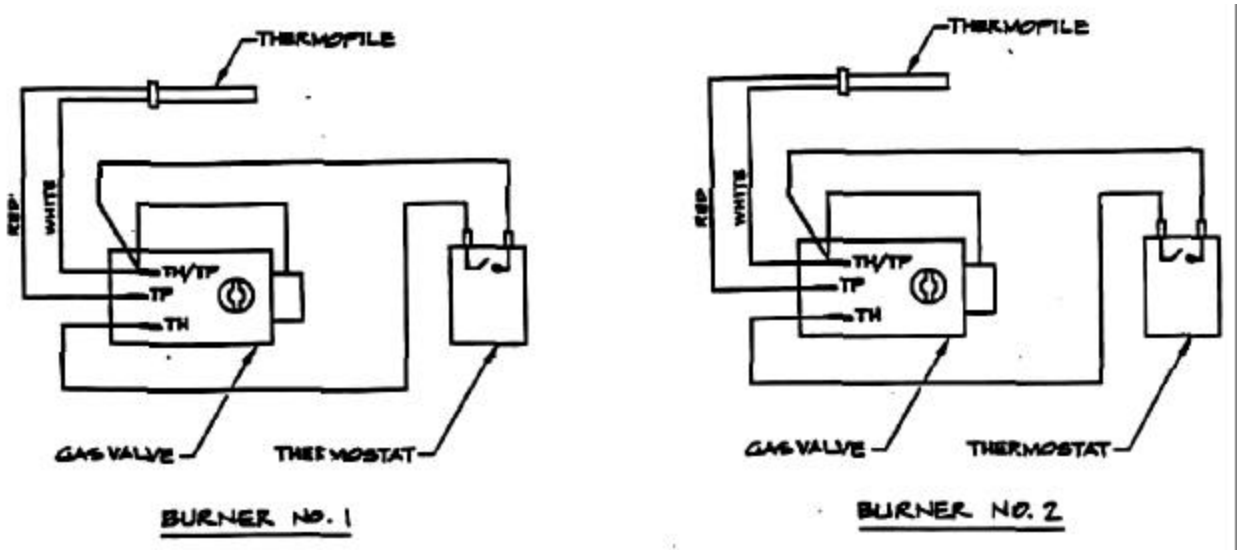


? = VARIES BY WIDTH OF UNIT		F/O = FACTORY ORDER	L/P = LOCAL PURCHASE	A/R = AS REQUIRED N/S = NOT SHOWN	
ITEM NUMBER	**PART NUMBER**	**COMPONENT DESCRIPTION**		**QTY**	**NOTES:**
1		FRAME ASSEMBLY, MAIN		1	
2		TOP ASSEMBLY		1	
3		FLUE ASSEMBLY		1	
4		PANEL, SIDE		2	
5a	65303	BURNER ASSEMBLY, MAIN		?	3 TO 4 REQ.
5b	65302	BURNER ASSEMBLY, MAIN (WG-3036^048:		?	2 TO 3 REQ.
6a	65951	HOLDER. THERMOBULB 24" (WG-24<50)		?	2 TO 3 REQ.
6b	65952	HOLDER, THERMOBULB 30" (WG-30xxG)		?	3 TO 4 REQ.
7	39039	INSULATION, THERMOBULB HOLDER		?	2 TO 4 REQ.
8		NUT, HEX, LOCK, ¼" X 20		?	2 TO 4 REQ.
9		WASHER, FLAT. ¼ " ID.		?	2 TO 4 REQ.
10	55485	NUT, HEX, ¼ - X 20		?	2 TO 4 REQ.
11	59331	CHUTE ASSEMBLY, GREASE		1	
12		WASHER, LOCK, ¼"		2	
13		SCREW, 5/16-18 NC, TRUSS HEAD		4	
14		SCREW, 6-32 X 3/8" SELF TAPPING		34	
15		DEFLECTOR, HEAT FRONT		1	
16		SUPPORT, BURNER ORIFICE		?	2 TO 4 REQ.
17	51053	NUT, KEP. 8-32 NC		3	
18	65361	THERMOSTAT, SEALED CASE		?	2 TO 4 REQ.
19		SUPPORT, THERMOSTAT		?	2 TO 4 REQ.
20	65321	KNOB, CONTROL. 200° TO 450° F.		?	2 TO 4 REQ.
21	65318	TUBE, PILOT, # 1 POSITION		1	ALL LEFT SIDE
22	65317	TUBE, PILOT, # 2 POSITION		1	ALL 2nd from left
23	65319	TUBE, PILOT. # 3 POSITION			WG-2436, 3036, WG-2448, 3048
24 N/S	65406	TUBE, PILOT, # 4 POSITION ,			WG-2448, 3048
25	65307	GAS VALVE		?	2 TO 4 REQ.
26	65299	ELBOW 3/8 CCX 3/8 NPT		?	4 TO 8 REQ.
27	65357	FITTING. ORIFICE		?	2 TO 4 REQ.
28a	65408	ORIFICE, NATURAL GAS		?	2 TO 4 REQ.
28b	59338	ORIFICE, PROPANE GAS, (1 ORIFICE PER BURNER)		?	PKG. OF 2. 1 TO 2 Pkg. req
30	65457	TUBE, BURNER # 4 POSITION		11	WG-2448, 3048

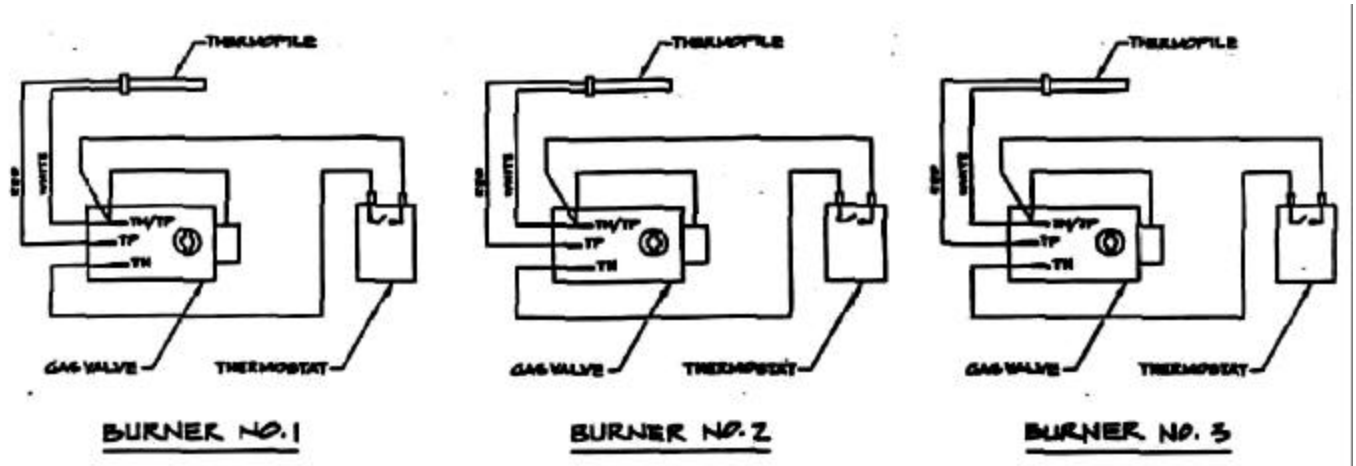
? = VARIES BY WIDTH OF UNIT		F/O = FACTORY ORDER	L/P = LOCAL PURCHASE		A/R = AS REQUIRED N/S = NOT SHOWN
ITEM NUMBER	PART NUMBER	COMPONENT DESCRIPTION		QTY	NOTES:
31	65316	TUBE. BURNER # 3 POSITION		1	WG-2436, 3036, WG-2448, 3048
32	65315	TUBE, BURNER # 2 POSITION		1	ALL 2nd FROM LEFT
33	65314	TUBE, BURNER # 1 POSITION		1	ALL LEFT SIDE
34a	65296	MANIFOLD		1	WG-2424G
34b	65295	MANIFOLD		1	WG-3036G
34c	65294	MANIFOLD		1	WG-3048G
34d	65293	MANIFOLD		1	WG-2436G
35	60680	NUT. KEP, 10-32 NO SS		2	
36		SCREW, HEX HEAD, 10-32 X ½"		2	
37		CAP, MANIFOLD		1	
3fia	59007	REGULATOR, NATURAL GAS		1	
38b	59284	REGULATOR, PROPANE GAS		1	
39	65300	FITTING, 3/8 CCX 1/8 NPT		?	2 TO 4 REQ.
40	59245	PLUG, 1/8 NPT		1	
41	65313	TUBE, MANIFOLD		?	2 TO 4 REQ.
42a	65308	PILOT		?	2 TO 4 REQ.
42b	65352	PILOT ORIFICE, PROPANE GAS		?	2 TO 4 REQ.
44	62195	THERMOPILE		?	2 TO 4 REQ.
45	20563	LEG/ADJUSTABLE FEET		SET/4	SET OF 4
46		HARDWARE KIT, LEG MOUNTING		1	
47		LABEL, SEE *LIGHTING INSTRUCTIONS INSIDE*		1	
49	65278	GREASE TRAY ASSEMBLY		1	
50	59173	DRAWER ASSEMBLY, GREASE		1	
51	53948	FRONT PANEL, GREASE DRAWER		1	
52	58668	HANDLE, GREASE DRAWER		1	
53		SCREW, 10-24 x 3/8, PAN HEAD		2	
54		PANEL, CONTROL		1	
55		SCREW, 8-32 x 1/2 HEX HEAD		4	
56	53848	TRADEMARK, WELLS		1	
57	51038	RETAINER, TRADEMARK PLATE		3	SET OF 10
58		DEFLECTOR PLATE. UPPER		1	
59		DEFLECTOR PLATE, LOWER		1	

? = VARIES BY WIDTH OF UNIT		F/O= FACTORY ORDER	L/P= LOCAL PURCHASE	A/R = AS REQUIRED N/S = NOT SHOWN	
ITEM NUMBER	**PART NUMBER**	**COMPONENT DESCRIPTION**		**QTY**	**NOTES:**
60	*65292*	PANEL. FRONT UPPER		1	
61	53453	CATCH, MAGNETIC		2	
62		LABEL. INSTALL LEGS		1	
63		NAMEPLATE, GAS		1	
64		LABEL, REGULATOR		1	
65		LABEL, MEA		1	
66		LABEL, DATE CODE		1	
67		LABEL, INSTRUCTIONS		1	
68a	45354	DIAGRAM, WIRING		1	WG-2424G
68b	45355	DIAGRAM, WIRING		1	WG-2436G / 3036G
68c	45356	DIAGRAM, WIRING		1	WG-2448G / 3048G

Wiring diagram WG-2424G PN:45354



Wiring diagram WG-2436G, WG-3036G PN: 45355



Wiring diagram WG-3048G PN: 45356